

REMARKS

This paper is in response to the Office action mailed November 20, 2009 ("the Office Action"). The foregoing amendment amends claims 22, 25, 28, 29, 32, and 33. Claims 1-36 remain pending, of which claims 1, 13, 22, 25, 29, and 32 are independent. Applicants respectfully request reconsideration of the application in view of the above amendments to the claims and the following remarks. For Examiner's convenience and reference, Applicants present remarks in the order that the Office Action raises the corresponding issues.

In connection with the prosecution of this case and any related cases, Applicants have, and/or may, discuss various aspects of the disclosure of the cited references as those references are then understood by the Applicants. Because such discussion could reflect an incomplete or incorrect understanding of one or more of the references, the position of the Applicants with respect to a reference is not necessarily fixed or irrevocable. Applicants thus hereby reserve the right, both during and after prosecution of this case, to modify the views expressed with regard to any reference.

Please note that Applicants do not intend the following remarks to be an exhaustive enumeration of the distinctions between any cited references and the claims. Rather, Applicants present the distinctions below solely by way of example to illustrate some of the differences between the claims and the cited references. Finally, Applicants request that Examiner carefully review any references discussed below to ensure that Applicants' understanding and discussion of any reference is consistent with Examiner's understanding.

Unless otherwise explicitly stated, the term "Applicants" is used herein generically and may refer to a single inventor, a set of inventors, an appropriate assignee, or any other entity or person with authority to prosecute this application.

Rejection Under 35 U.S.C. §112, ¶2

The Office Action objects to the specification as failing to provide proper antecedent basis in the descriptive portion of the specification for subject matter recited in claims 3 and 25.

As to claim 3, the Examiner asserted the following limitation is not described in the specification: "wherein the controller is configured to use a transceiver private encryption key and a transceiver public encryption key to authenticate the transceiver." See *Office Action* at 2. Applicants respectfully disagree. At least at pages 9-11, the specification describes an example transceiver 36 having a security microcontroller 38 that is "configured to use a transceiver private encryption key and a transceiver public encryption key to authenticate the transceiver." Security microcontroller 38 "authenticates transceiver 36 with host 32." See *Specification* at p. 9, lines 26 and 27. As part of the authentication, security microcontroller 38 "returns [a] sealed transceiver 36 specific public key" to host 32 in response to an authentication request from host 32, receives a random number from host 32, and then "seals (encrypts) the random number using the transceiver 36 specific private key." See *id.* at p. 10, lines 8-31. Accordingly, security microcontroller 38 is an example controller that provides antecedent basis in the specification for the claimed controller "configured to use a transceiver private encryption key and a transceiver public encryption key to authenticate [a] transceiver."

As to claim 25, the Examiner asserted "Claim 25 recites 'authenticating the fiber optic transceiver independent of the received data signals.'" See *Office Action* at 2 (emphasis in original). Applicants respectfully disagree. Nonetheless, in the interest of expediting allowance, Applicants have amended claim 25 to remove the recitation "independent of the received data signals," thereby obviating the objection with respect to claim 25.

In light of the foregoing, Applicants respectfully request withdrawal of the objection to the specification.

Rejection Under 35 U.S.C. §112, ¶2

The Office Action rejects claims 25-28 under 35 U.S.C. §112, ¶2, as being indefinite. In particular, the Examiner alleged with respect to claim 25, "there are no descriptions in the disclosure for means that is used for authenticating the fiber optic transceiver independent of the received data signals up to installation of the fiber optic transceiver." See *Office Action* at 3. Applicants respectfully disagree. Nonetheless, in the interest of expediting allowance, Applicants have amended claim 25 to replace the recitation of a "means for authenticating..."

with "a controller configured to authenticate...", thereby obviating the rejection. In light of the foregoing, Applicants respectfully request withdrawal of the rejection.

Rejection under 35 U.S.C §103(a)

The Office action rejects claims 1-36 under 35 U.S.C §103(a) over *Pinder et al.* (U.S. Patent Publication No. 2003/0108199) in view of what the Examiner characterized as "admitted prior knowledge" (*APK*). Applicants respectfully disagree.

To support an obviousness rejection, MPEP §2143.03 requires "all words of a claim to be considered." Further, the Board of Patent Appeal and Interferences confirmed that a proper, post-KSR obviousness determination requires "a searching comparison of the claimed invention—including all its limitations—with the teaching of the prior art." *In re Wada and Murphy*, Appeal 2007-3733 (BPAI 2008), citing *In re Ochiai*, 71 F.3d 1565, 1572 (Fed. Cir. 1995) (emphasis added). Moreover, as the Supreme Court recently stated, "there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *KSR Int'l v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (emphasis added)).

A. Independent Claims 1 and 13

Claim 1 recites a transceiver comprising a "controller configured to... authenticate the transceiver, authentication of the transceiver to be "contingent upon whether or not the transceiver has been certified by a manufacturer of the transceiver and/or a supplier of the transceiver as meeting a specified quality standard." Claim 13, although of different scope, recites similar language.

In rejecting claims 1 and 13, the Examiner alleged that *Pinder* discloses a transceiver comprising "a controller configured to...authenticate the transceiver." See *Office Action* at 5. However, the Examiner acknowledged that the authentication described in *Pinder* is not contingent upon whether or not the transceiver has been certified by the manufacturer "to meet a specified quality standard which means that the transceiver is not a cloned one." See *Office Action* at 6. In fact, according to *Pinder*, the reason for authenticating subscribers of a

broadband system appears to be to "thwart unauthorized access to the content of the broadband system." *See Pinder* at ¶ 4.

The Examiner then alleged, "APK discloses that the transceiver must meet strict quality standards before its deployment..." "Thus," according to the Examiner, "it would have been obvious...to deploy a transceiver that meets its manufacturer's specified quality standards as described in APK in the system of Pinder in order to have a reliable transceiver instead of a cloned one to prevent possible loss due to the failure of transceiver." *See id.* For at least the reasons set forth below, Applicants respectfully disagree.

As an initial matter, Applicants note that what the Examiner has concluded as being obvious differs from what is claimed. More specifically, the Examiner concluded that it would have been obvious to "deploy a transceiver that meets its manufacturer's specified quality standards as described in APK in the system of Pinder." *See Office Action* at 6 (emphasis added). However, claims 1 and 13 do not recite any limitations with respect to deployment of a transceiver, but rather require a specific form of authentication, i.e., one that is "contingent upon whether or not the transceiver has been certified by a manufacturer of the transceiver and/or a supplier of the transceiver as meeting a specified quality standard," as claimed.

Moreover, in reaching the conclusion of obviousness, the Examiner appears to have simply assumed that the claimed solution of authenticating "contingent upon whether or not the transceiver has been certified... as meeting a specified quality standard" necessarily follows from the problem identified in the APK of possible loss due to failure of a cloned transceiver. That is, the problem of possible loss due to cloned transceiver failure might admit to solution by a wide variety of different approaches, but the Examiner has completely failed to explain why, faced with that problem, the person of ordinary skill in the art would necessarily arrive at the particular solution recited in the claims. Instead, the Examiner appears to have simply concluded in hindsight and without evidence, analysis or rationale, that it would have been obvious to prevent loss associated with cloned transceivers by making authentication of *Pinder's* transceiver contingent upon a quality standard certification because that is the solution identified in Applicants' specification.

In light of the foregoing, the Examiner has thus failed to establish a *prima facie* case of obviousness with respect to claims 1 and 13. Therefore, withdrawal of the rejection of claims 1 and 13, and their corresponding dependent claims, is respectfully requested.

B. Independent Claims 22, 25, 29, and 32

Claim 22, as amended, recites a transceiver comprising a transmitter and a receiver configured and arranged to transmit and receive data signals "over a network connection" and a controller configured and arranged to communicate with a host "over a local communication link" to authenticate the transceiver. Figure 1 of Applicants' specification (copied below) depicts a transceiver having a controller (38) that is configured and arranged to communicate with a host over a local communication link (34). Although not specifically depicted in Figure 1, transceiver circuit (40) includes a transmitter and a receiver configured and arranged to transmit and receive data signals "over a network connection."

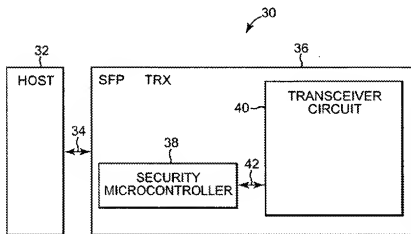


Fig. 1

In contrast, *Pinder* describes an opposite arrangement. As shown in Figure 1 of *Pinder* (copied below), a DSCT (110) (identified as the claimed "transceiver") is located remotely from a headend (102) (identified as the claimed "host"). Thus, DSCT (110) appears to communicate with headend (102) over a long-distance network connection. Moreover, although television (112) is local to DSCT (110), television (112) cannot possibly correspond to the claimed host because DSCT (110) does not authenticate itself to television (112).

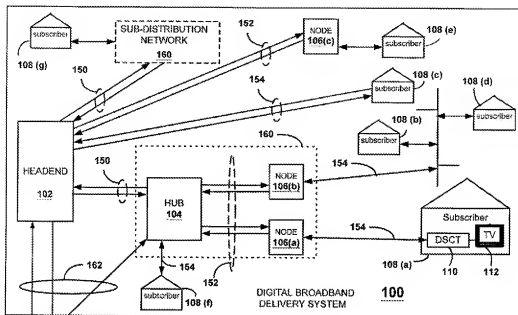


FIG. 1

Claim 25, as amended, recites a fiber optic transceiver comprising “a controller configured to authenticate the fiber optic transceiver to to [a] local host upon installation of the fiber optic transceiver without using [a] network communications channel.” (Emphases added.) In contrast, DSCT (110) of *Pinder* (identified as the claimed “fiber optic transceiver”) authenticates itself to a headend (102) located remotely—not locally—with respect to DSCT (110) and does so with use of a network channel (i.e., using transmission media 150, 152, and 154.) See *Pinder* at Figure 1 (copied above).

Claim 29, as amended, recites a method comprising “installing a transceiver in the system so that the transceiver is in communication with a local host; [and] sending an authentication signal from the transceiver to the local host.” In contrast, headend (102) (identified as the claimed “host”) is not “local” with respect to DSCT (110) (identified as the claimed “transceiver”). See *Pinder* at Figure 1 (copied above).

Claim 32, as amended, recites a method comprising “plugging a transceiver into a corresponding receptacle of a local host to electrically couple the transceiver to the local

host through a communication link." In contrast, headend (102) (identified as the claimed "host") is not "local" with respect to DSCT (110) (identified as the claimed "transceiver"). See *Pinder* at Figure 1 (copied above). Moreover, DSCT (110) is not "plugg[ed]... into a corresponding receptacle of" headend (102). See *id.*

In light of the foregoing, claims 22, 25, 29, and 32, as amended, are submitted to be allowable over the cited art of *Pinder* and APK. Accordingly, withdrawal of the rejection of claims 22, 25, 29, and 32, and their corresponding dependent claims, is respectfully requested.

Charge Authorization

The Commissioner is hereby authorized to charge payment of any of the following fees that may be applicable to this communication, or credit any overpayment, to Deposit Account No. 23-3178: (1) any filing fees required under 37 CFR § 1.16; (2) any patent application and reexamination processing fees under 37 CFR § 1.17; and/or (3) any post issuance fees under 37 CFR § 1.20. In addition, if any additional extension of time is required, which has not otherwise been requested, please consider this a petition therefor and charge any additional fees that may be required to Deposit Account No. 23-3178.

CONCLUSION

In view of the foregoing, Applicants submit that the pending claims are allowable. In the event that Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview or overcome by an Examiner's Amendment, Examiner is requested to contact the undersigned attorney.

Dated this 11th day of February 2010.

Respectfully submitted,

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